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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,374	09/26/2005	Pierre-Jean Krauth	05-106	1327

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SUITE 1201  
NEW HAVEN, CT 06510

EXAMINER

LIVEDALEN, BRIAN J

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/522,374

Applicant(s)

KRAUTH ET AL.

Examiner

Brian J. Livedalen

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/18/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

Claim 14 is objected to because of the following informalities: Claim 14 would be made clearer if applicant adds: wherein the measuring step further comprises.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11, 16, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lugos (4917500).

In regard to claims 11, 16, and 20, Lugos discloses (fig. 1) a method and device for measuring the characteristics of a surface during feed of the product during manufacture including a measuring head (SK) with a front surface placed opposite a surface of the product and including a lighting optical fiber (LWL1) and an orthogonal measuring optical fiber (LWL5) (column 3, lines 17-30, column 8, lines 19-26), the two optical fibers each having, at a front face of the head, a free stripped end so that corresponding terminal portions of the fiber are arranged in parallel and as close to each other as possible (fig. 2, column 4, lines 20-31), another end of the lighting optical fiber being connected to a light radiation source (L1) having a predetermined

Art Unit: 2878

wavelength and another end of the measuring optical fiber being connected to a sensor (PD) (column 3, lines 30-68), and the device including in addition means for processing a signal supplied by the sensor for determining intensity of the radiation which is transmitted to the sensor by the measuring optical fiber (column 1, line 60 – column 2, line 4). Defining the measurement method as directed to a metallurgical product is an intended use.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lugos (4917500) as applied to claim 11, and in view of Kuebler et al. (2003/0142309).

In regard to claim 12, Lugos discloses a measurement method as set forth above. Lugos discloses holding the free ends of the fibers at a specified distance but fails to disclose a specific distance. However, Kuebler discloses a fiber optic measurement system that holds the ends of the fiber 5 mm from the surface of inspected material (page 23, paragraph 0187). It would have been obvious to one of ordinary skill in the art at the time the invention was made to hold the fibers 5 mm from the surface of the object in order achieve the desired accuracy and imaging area.

Claim 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lugos (4917500) as applied to claims 11 and 16, and in view of Tomita (5894122).

In regard to claims 13 and 19, Lugos discloses a measurement method as set forth above. Lugos fails to disclose using a light source with a wavelength of 830 nm. However, Tomita discloses an imaging system with a light source (2) having a wavelength of 830 nm (column 5, lines 14-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a wavelength of 830 nm in order to increase the detection accuracy.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lugos (4917500) as applied to claims 11 and 16, and in view of Talanov et al. (6597185).

In regard to claim 17, Lugos discloses a measurement method as set forth above. Lugos fails to disclose using a distance sensor. However, Talanov discloses (fig. 6) a measurement system with a distance sensor (column 4, lines 28-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a distance sensor in order to maintain a constant distance between the surface and fiber during measurement.

Claim 14, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lugos (4917500) as applied to claims 11 and 16, and in view of Buxbaum (CH 663473).

In regard to claims 14, 15, and 18, Lugos discloses a measurement method as set forth above. Lugos fails to disclose a second measurement means, which measures the reflected radiation oblique to the surface. However, Buxbaum discloses (fig. 2) a measurement system with optical fibers, one that measures in a direction orthogonal to the surface (36) and one that measures in an oblique direction between 0 and 30 degrees (37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a second sensor at an oblique angle in order to more accurately detect the object.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Livedalen whose telephone number is (571) 272-2715. The examiner can normally be reached on 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

bjl



Georgia Epps  
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